

**NORTH CAROLINA
STATE UNIVERSITY**

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SWARTZEL NAMED FOOD SCIENCE DEPARTMENT HEAD

Effective July 1, 1994 Dr. Kenneth R. Swartzel accepted the responsibilities of Head, Department of Food Science at North Carolina State University. Swartzel, a William Neal Reynolds Professor, received all three of his degrees from North Carolina State University and has been on the faculty of the Departments of Food Science and Biological and Agricultural Engineering since 1980. In accepting this position Swartzel says "I want to give back to North Carolina and NCSU...I want to help students, staff and faculty reach their potential." Swartzel has served as interim department head since August, 1993 and was selected to permanently fill this position as a result of a national search for outstanding candidates.

In his 14 years on the faculty at NCSU, Dr. Swartzel has developed a multifaceted research program that excites both the academic community and the business world. His research has focused on continuous flow thermal processing and has yielded over 70 publications and 14 patents. The liquid whole egg research, a collaborative effort with Drs. Hershell Ball and Mohammed Samimi, revolutionized the egg industry by extending the shelf life of refrigerated liquid whole egg. This new technology is extremely important because it insures that processed eggs are free of salmonella and other pathogens, and also reduces the energy cost associated with production and distribution of frozen eggs. At the 1994 IFT Annual meeting in Atlanta, the Department of Food Science at NCSU received the Industrial Achievement Award for this research.

A second thrust of Dr. Swartzel's research has focused on the development of a thermal memory cell, a temperature sensitive micro-chip designed to provide thermal process evaluation data required by industry and regulatory agencies.

Swartzel's efforts have also produced a concept of calibration materials for thermal process evaluation and the investigation of potential materials. The NCSU

Alumni Association recognized Dr. Swartzel's research achievements by presenting him the 1993 Outstanding Alumni Research Award.

Dr. Swartzel is also an outstanding educator who has received national and international acclaim. He developed and teaches a graduate level food kinetics course which conveys basic kinetic principles and their application in food process design, evaluation and safety. Graduates from his program continue to build on the inspiration and knowledge gained through association with Dr. Swartzel in the classroom or laboratory to become successful innovators in industry and universities.

During his tenure at NCSU, he helped to create two industry-university organized research units, the Center for Aseptic Processing and Packaging Studies and the Michael Foods' Single Sponsor Laboratory. In addition to directing these units, he has served as a member of the Operating Advisory Council for the Southeast Dairy Research Center at NCSU.

As Department Head, Dr. Swartzel will strive to promote academic excellence, excitement and vision through all levels of the Department of Food Science teaching, extension and research programs.

SCHOLARSHIPS AND AWARDS

Recipients of Foods Science Scholarships and Awards were recognized at the Twenty-eighth Annual Awards Banquet, hosted by the Food Science Club and the Department of Food Science at the NCSU Faculty Club on April 14, 1994. Over \$20,000 in scholarship aid was awarded to those students with at least a B (3.0) grade point average and to students with financial need. Special scholarships and awards that students received over the past year were also recognized. The Leonard and Frances Crouch Scholarship Achievement Award and the Ambrosia

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Scholarships and Awards...continued

Chocolate Award were given to **Cheryl Gaither** and **Diego Darquea** for having the highest Grade Point Average in the Junior and Senior Classes, respectively. The Forbes Leadership Award went to **Hillary Hunt**, and the B.M. Newell Award was presented to **Diego Darquea**. The Food Science Club presented their awards for Outstanding Undergraduate and Graduate Members to **Melissa Wilkins** and **Heidi Bardole**. A new club award, the Outstanding Teaching Award was presented to **Dr. Peggy Foegeding**.

The Banquet followed the Department of Food Science/Food Science Club 1994 Research Symposium, at the NCSU Student Center. Students were selected from different faculty research groups to present an overview of research being conducted in their lab.

SPRING COMMENCEMENT

The Agricultural Institute commencement exercises were held on Friday, May 13 at Stewart Theater with a reception following in the ballroom. The Associate Degree was awarded to Harry Chance, Jimmie Upchurch, Bryant Wrenn and Jackie Young.

University commencement exercises were Saturday, May 14 at Carter-Finley Stadium. Elizabeth Dole, head of the American Red Cross, delivered the commencement address. Following the university celebration, the Food Science Department honored its graduates with a program for awarding diplomas and a reception in Schaub Hall.



Faculty presented diplomas to their advisees in departmental graduation ceremony.

The following food science students received degrees. Bachelor of Science: **Ammie Archer**, Raeford, Anne-Bee Buchner, Charlotte, **Diego Darquea**, Quito, Ecuador, **James Parker**, Youngsville, **Angela Phillips**, Siler City, **Deana Robinson**, Mount Gilead, **Felicia Sharpe**, Winston-Salem, **Tammy Soltis**, Marlboro, MD, **Lara Stevenson**, Nicholasville, KY, **Melissa Wilkins**, Laurinburg; Master of Science: **Amy Corbet**, Radford, VA, **Eilene Bowland**, Arlington, TX, **Gwen D'Amelio**, Raleigh, **Jean Michaels**, Crawford, NJ, **Laura Reina**, Lima, Peru, **Carolyn Roff**, Tryon; Master of Life Science: **Monica Seagroves**, Apex; Doctor of Philosophy: **Susan Heddleson**, Garden City, KS, **Martha Liu**, Jackson, MS, **Julie Northcutt**, Greenville, SC, **Harold Schmitz**, Fayetteville, AK, **Peifang Zhang**, Harbin, China.

NC STATE RECOGNITION AT IFT

Our department walked away with many honors at the IFT annual meeting held in Atlanta. **Dr. Peggy Foegeding** was awarded the prestigious William V. Cruess Award. The department and Michael Foods were awarded the IFT Industrial Achievement Award. **Ron Heddleson** won 1st place in the IFT Dairy Technology Division research competition. **Jennifer Quinlan** won 2nd in the IFT Food Microbiology Division Poster Presentation competition. Our **Food Science Club** was the only club to have participants in all five IFT Student Association competitions. **Diego Darquea** and **Craig Sherwin** competed in the Undergraduate Research Paper competition. Craig won second place and Diego received an honorable mention. **Darrell Taylor**, a finalist in the Graduate Paper competition received an honorable mention. The College Bowl Team competed in the finals, and the Food Science Club received second place in the Chapter of the Year competition. The Product Development Team received second place for "Sweet Sticks", a snack food made from North Carolina sweet potatoes. Students, faculty, and staff presented over 30 posters and talks in the technical sessions.

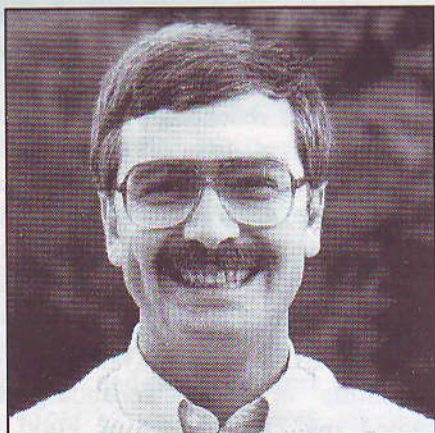
FOOD SCIENCE CLUB ELECTS OFFICERS

Karina Sylvia was elected President of the Food Science Club for 1994-95. Other officers are: **Hillary Hunt**, Vice President; **Wendy Disario**, Secretary; and **Ellen Ciplinski**, Treasurer. The activities chairpersons are **Kay McNeil** and **Anna Reich**. **Deanna Nuskowski** will serve as historian. The Ag Council Reps will be **Chris Pernell** and **Cheryl Gaither**. The faculty advisors for this year will be **Dr. Arthur Hansen** and **Dr. Lynn Turner**.

NEW FACULTY MEMBERS HIRED

Dr. Brian Farkas has been appointed an Assistant Professor in the Department of Food Science. Dr. Farkas recently received his Ph.D. in the area of Food Engineering from the University of California at Davis. His Ph.D. research involved mathematical modeling of deep fat frying. Brian worked in the frozen food industry for several years between his M.S. and Ph.D. programs. His research and teaching appointment begins September 1.

Dr. David Green has been hired to fill a new tenure-track Assistant Professor position with duties in extension and research related to seafood processing. David will be housed in a newly-renovated laboratory complex in Morehead City, NC, that is accessible to a majority of the state's seafood processors. Dr. Green received his Ph.D. from N.C. State in 1990, and has been working as an Extension Specialist at the Morehead City Seafood Laboratory since that time. The Seafood Extension Program has been continuously funded on a year-to-year basis by the North Carolina Sea Grant program since 1973. This year, a special legislative appropriation permitted the new faculty position and two staff positions to be permanently added to the Department of Food Science.



Dr. David P. Green

Dr. Green's extension program will continue to assist the commercial fishing industries, county extension agents and consumers in areas of seafood utilization, quality, safety, and nutrition. David expects to conduct research in cooperation with other faculty in the departments of Food Science and Agricultural and Biological Engineering. The renovations to the Seafood Laboratory in Morehead City will expand the research capability at that site.

MICROBIOLOGY SELECTS HEAD

Dr. Hosni Hassan of Raleigh has been appointed head of the Department of Microbiology in the College of Agriculture and Life Sciences. Hassan has served as interim head since 1993, and has been a professor of microbiology and Food Science at NCSU since 1984. Prior to coming to NCSU as associate professor in 1980, he served for two years as associate professor of Microbiology at McGill University in Montreal. The 56 year old native of Alexandria, Egypt, received his doctorate in 1967 from the University of California at Davis, and a bachelor of science degree in 1959 from Ain Shams University in Cairo, Egypt.

OBLINGER RECEIVES NACTA AWARD

Dr. James L. Oblinger, Associate Dean of the College of Agriculture and Life Sciences and Professor of Food Science, received the Distinguished Educator Award at the annual meeting of the National Association of Colleges and Teachers of Agriculture in June. The award recognizes excellence in teaching, educational research or administration among NACTA members with ten or more years of experience.

Oblinger, a native of Ashland, Ohio, received his baccalaureate degree in bacteriology from DePauw University in 1967 and his M.S. and Ph.D. degrees in Food Technology from Iowa State University in 1970 and 1972, respectively. In 1972 he joined the Food Science and Human Nutrition Department at the University of Florida in Food Microbiology. In 1984, Dr. Oblinger moved into academic administration at the University of Missouri-Columbia's College of Agriculture, and in 1986, to his present position at North Carolina State University in the College of Agriculture and Life Sciences. As Associate Dean and Director of Academic Programs, he provides overall leadership for 22 departments, 450 faculty and approximately 4,500 students. His programs and leadership continually promote excellence in teaching and advising among the college faculty.

Dr. Oblinger has been an active participant in the Institute of Food Technologists as well as the Southern Association of Agricultural Scientists organization. Oblinger received IFT's William V. Cruess Award for Excellence in Teaching in 1983. In 1989, he was appointed by the Secretary of Agriculture to the USDA's Joint Council on Food and Agricultural Sciences. He also has been active in the Council for Agricultural Science and Technology (CAST). He first became a representative of IFT on CAST's Board of Directors and served on the Board, 1986-88, Executive Committee, 1988-91 and was CAST's President, 1990-91.

FACULTY AWARDS

Dr. Harold E. Swaisgood has been selected to receive the 1994 Award for Advancement of Application of Agricultural and Food Chemistry. This prestigious award is sponsored by International Flavors and Fragrances, Inc. and administered by the Agricultural & Food Chemistry Division of American Chemical Society. It will be presented at the AGFD awards banquet during the 208th National ACS meeting in Washington, D.C. in August.

Dr. Peggy M. Foegeding received the William V. Cruess Award for excellence in teaching and advising, given by the IFT at the June 1994 Annual Meeting.

Dr. Todd Klaenhammer was awarded the Carolina-Virginia's NAMA National Award for Agricultural Excellence. The National Agri-Marketing Association award was presented March 23 and recognizes applications of scientific breakthrough; in this case, development of genetic strategies to protect dairy starter cultures from attack by bacterial viruses.

Dr. K.R. Swartzel received the 1994 Harold Macy Food Science and Technology Award. The award was given by the Minnesota Section of IFT in recognition of Dr. Swartzel's work in continuous thermal processing systems and his success in technology transfer between university scientists and private industry.

Dr. Swartzel will be presented the Educator Award at the 81st Annual Meeting of the International Association of Milk, Food and Environmental Sanitarians, Inc. The award is sponsored by IBA, Inc. and is presented in recognition of outstanding academic contributions to the field of food protection. The meeting will be held July 31-August 3 at the Hyatt Regency Riverwalk in San Antonio, Texas.

Dr. Roy E. Carawan was awarded one of the three NCSU Alumni Association Outstanding Extension Awards for 1994. Included with the plaque was a monetary award of \$2,000.

STRATEGIC PLAN DEVELOPED

A committee assigned the task of developing a strategic plan for our department has finished its work, published and distributed the plan. The committee, chaired by Dr. George Catignani, included Drs. Todd Klaenhammer, Duane Larick, Brian Sheldon, Donn Ward and Tim Sanders. Beginning with a one day retreat in March, the faculty, with staff input, set about to establish an analytically oriented plan for the future. Aspects of our mission, visions and clientele identification were addressed from a discipline

approach. Faculty assigned their efforts into four critical issue areas. These are food safety, adding value to food commodities, environmental quality relative to food processing and packaging, and nutrition and health. A strategy formulation and implementation focus were developed which includes a faculty staffing plan. During 1994-95 an implementation plan with specific action steps will be formulated to address the identified strategies. This plan will mesh with a strategic plan for the College of Agriculture and Life Sciences that is currently being developed to provide a framework for strategic thinking and decision making into the 21st century.

SDFRC NEWS

The National Dairy Promotion and Research Board has awarded the Southeast Dairy Foods Research Center 1.6 million dollars to continue its research efforts for the next four years. The SDFRC focuses its research efforts in four critical research areas, *Milk Component Functionality, Microbial & Genetic Technologies, Biological & Thermal Processing, and Innovative Products*. Six projects were already approved for funding and began July 1, 1994. The SDFRC plans to fund additional projects in 1995.

In the interim, the SDFRC has sponsored several department seminars this summer, and researchers have been communicating dairy research activities at professional meetings. Over the past two months fourteen dairy-related research paper presentations have been delivered at five different professional meetings including ADSA, IFT, ASM, and two International Genetics Conferences.

EXTENDED SHELF-LIFE PRODUCT WINS AWARD

The Institute of Food Technologists (IFT) recently named the Department of Food Science, North Carolina State University and Minneapolis based Michael Foods, Inc. recipients of the 1994 Industrial Achievement Award.

Presented to Hershell Ball, Jr., Kenneth Swartzel, Mohammed Samimi and Richard Olson, the award recognizes their efforts to develop extended-shelf-life, ultra-pasteurized whole-egg product. Credited with revolutionizing the food service industry, the product represents a significant step forward in commercial egg use and production. This technology is a product of industry/university cooperation and emphasizes the importance of such collaborative efforts.

Responsible for extending whole-egg product shelf-life from seven to 10 days to more than six months, this applied science product eliminated food-borne pathogens like *Listeria* and *Salmonella*. Initiated by the NCSU Department of Food Science in the early 1980s, extended-shelf-life liquid whole-egg product came to fruition when Michael Foods acquired the license for the patent and completed the commercialization process in 1989.

Ball, Swartzel, Samimi and Olson accepted the Industrial Achievement Award at the 1994 IFT Annual Meeting and Food Expo on Saturday, June 25 at the Georgia World Congress Center in Atlanta. Honored by the award, Swartzel, head of the food science department at NCSU, says the highly coveted award symbolizes the benefits possible through applied food science and technology. "The purpose of food Science is to educate constituents, advance food science knowledge and help industry produce the best and safest products possible" he explains. "Every major company wants to win the Industrial Achievement Award from IFT. We feel quite honored to receive it."

As the authoritative voice of food science and technology, IFT advances public understanding of food issues through effective communication and scientific information. Founded in 1939, the Chicago-based nonprofit scientific society has 27,000 members working in industry, academia and government.

FACULTY ACTIVITIES

Drs. Tyre Lanier, E. Allen Foegeding and Donald Hamann hosted a three day workshop/short-course titled "Rheology of Food Biopolymer Gels: A Practical Approach" at the NC Biotech Center, Research Triangle Park in May. They were assisted by technicians, undergraduate and graduate students. Participants in the workshop came from as far away as New Zealand, and the organizers hope to make it an annual event. The course was sponsored by the Department of Food Science and the Southeast Dairy Foods Research Center. Many participants came from supplier companies of starch, hydrocolloid and protein (dairy, soy and meat).

Dr. Jonathan Allen was appointed Coordinator for the Interdepartmental Program in Nutrition. The position involves administration of graduate programs in Nutrition, undergraduate nutrition minors, course offerings, and a research grants program sponsored by the University of North Carolina Institute of Nutrition and NCSU. The Nutrition program is made up of faculty from the departments of Animal Science, Food

Science, Poultry Science, Toxicology and Food and Nutrition Extension.

Dr. Peggy M. Foegeding provided testimony to the Human Resources and Intergovernmental Relations Subcommittee of the Committee on Government Operations on May 25. The testimony concerned changes in the federal food safety system which were proposed by Vice President Gore and the consequences of such changes from a scientific perspective. She is Panel Manager of U.S.D.A. Competitive Grants in Food Safety for 1994.

Dr. Harold Swaisgood served as General Chairman of the 1994 J.R. Brunner Protein Symposium. **Dr. Tyre Lanier** was an invited speaker at the event which is held annually at Michigan State University. Dr. Lanier was also invited to speak at a symposium sponsored by the Muscle Foods and Seafood Technology Division of IFT entitled "Convergences in the Science of Meat, Poultry and Fish Protein Functionality" at the annual IFT meeting.

Dr. Arthur Hansen taught "Milk and Dairy Products and Commercial Food Processing" in the past spring semester. In March, he was an invited speaker at a symposium on UHT processing of milk at the Western Center for Dairy Protein Research and Technology, Utah State University, Logan. Dr. Hansen has received a research grant from International Paper to study the "Effect of Various Dairy Packaging Materials on the Shelf Life and Flavor of Ultrapasteurized Milk". He is also preparing to give a seminar on aseptic processing and packaging of creams at Kohler Mix Specialties in White Bear Lake, MN.

Dr. Lynn Turner attended the 40th annual conference of National Association of Colleges and Teachers of Agriculture (NACTA) which was held at Texas A&M University June 12-15. The theme of the conference was "The Future-Using Technology to Attract, Educate and Graduate". Turner coordinated the educational materials display for the conference.

Dr. Donn Ward has been appointed an advisor for the U.S. delegation to the Codex Alimentarius Commission's Committee on Food Hygiene. He has also been asked to serve on the National Center for Food Safety and Technology's Steering Committee for the development of a HACCP Library. The library is to consist of generic HACCP plans for the food processing industry. Dr. Ward is serving as a member of FOA's committee for development of a HACCP Core Training Curriculum, representing the Seafood HACCP Alliance. The alliance is a consortium of academic, industrial and regulatory agencies, and the

primary goal is the harmonization of industry and regulatory training.

Dr. Steven Schwartz has been appointed Interim Director of CAPPS. He was recently an invited speaker to the Carotenoid Interaction Group (CARIG) held at "Experimental Biology 94" in Anaheim, California, and was also asked to speak to a chromatography discussion group in Washington, D.C. Dr. Schwartz taught a short course with Dr. K.R. Swartzel entitled "Application and Advances of Aseptic Technology" in Buenos Aires, Argentina. The course was sponsored by the International Life Sciences Institute (ILSI), the International Union of Food Science and Technology, and Tetra Pak, Inc. Seventy-nine participants attended the course which was translated simultaneously from English to Spanish.

Dr. Brian W. Sheldon was appointed Director of the Single Sponsored Laboratory supported by Michael Foods of Minneapolis, MN. In January, he presented a paper at the Southern Poultry Science Society annual meeting in Atlanta entitled "Efficacy of Salmide under Field Trial Conditions to Reduce Salmonella, Campylobacter, Coliforms and *E. coli* Populations on Broiler Carcasses". Sheldon was an invited speaker at a meat and poultry wastewater workshop sponsored by Schreiber Engineering in Jackson, MS and presented a talk entitled "Research Overview of Poultry Chiller Water Recycling Systems." A grant for \$19,733, funded by Southeastern Poultry & Egg Association titled "Development of Bacteriocin-Based Packaging/Edible Film Delivery Systems to Control/Reduce Pathogenic and Spoilage Organisms Associated with Fresh Poultry Products" has been approved.

A paper authored by **Dr. William M. Walter, Jr.** and V. D. Truong, "Creating New Markets with Restructured Sweet Potatoes" was presented by Dr. Walter to the 32nd annual meeting of the NC Sweet Potato Commission, Jan. 20, at the Wilson County Agricultural Center in Wilson, NC. Dr. Walter also presented "Evaluation of Base Treated Sweet Potato French Fries", authored by himself and K. E. Sylvia, to the National Sweet Potato Collaboration Group, Feb. 5, in Nashville, Tennessee.

Dr. Todd Klaenhammer was one of three co-organizers that planned and hosted the 4th International Conference on the Genetics of Streptococci, Enterococci, and Lactococci held in Santa Fe, NM, May 15-18. Over 320 participants from around the world were drawn to this meeting that provided a forum for interchange of basic, medical, and applied knowledge about streptococcal bacteria.

Dan O'Sullivan and Sylvain Moineau presented papers at the conference and have been invited to prepare manuscripts for a forthcoming book that will publish the plenary lectures plus selected papers from the meeting. Dr. Klaenhammer presented an invited seminar at Michigan State University on April 27, "Dairy Biotechnology, Molecular Point-Counterpoint". He also presented an invited lecture at the 7th International Symposium on the Genetics of Industrial Microorganisms, in Montreal, Canada June 27-July 1. Evelyn Durmaz, Dan O'Sullivan and Carey Walker also attended and presented posters on their research with dairy starter systems, bacteriophage evolution, and transposable genetic elements, respectively.

Dr. Roy E. Carawan has been an active participant in the IFT Scientific Lecturer Program. His travels have taken him to the Southern California Food Industry Conference in Orange, CA in January, the Oklahoma IFT Meeting in Enid, OK in February, and the Ark Sar Ben IFT Meeting in Omaha, NE in March to give talks with the alluring titles "What Food Plants and Outhouses Have in Common", "Food Processing Environmental Issues-Taking Sides in the War for the World" and "The Effect of the Green Revolution on Food Processing", respectively. Carawan also participated in: an AMI Environmental Committee Meeting, Washington, DC; the Energy and Environmental Engineering in the Food Processing Industry Conference, San Antonio, TX; the Industrial Food Processing Seminar; and the Clean Water Act Compliance Course, Washington, DC. Carawan continued to assist the World Environment Center (WEC) with ideas on water conservation and pollution prevention in food plants. He performed pollution prevention diagnostic assessments at meat processing plants in Santiago, Chile and at processing plants in Alexandria, Egypt. Roy performed a follow-up visit to the Rakvere Meat Processing plant in Estonia and was co-leader of a four day workshop "Waste Minimization in the Food Processing Industry" in Amman, Jordan during April of 1994. Carawan participated in the Clean Foods Conference in the Gold Coast, Australia as a keynote speaker and panel participant. Papers presented included "Environmentally Conscious Food Manufacturing" and "Water Use and Reuse for Animal Processing Plants".

Dr. Hosni M. Hassan was elected President of the NC Chapter of the American Society for Microbiologists for the 1994-95 term. Dr. Hassan attended the National ASM Meeting in Las Vegas on May 22-27 and presented a paper on antioxidant enzymes.

STUDENT, STAFF AND ALUMNI NEWS

Mr. Kenji Aoyama from Snow Brands Milk Products Company in Japan, has joined Todd Klaenhammer's group to work for two years with genetic systems in lactobacilli. He is accompanied by his wife, Mana, and 1 year old daughter, Hirona. Kenji has participated in the American Society for Microbiology in Las Vegas, Genetics of Industrial Microbiology meetings in Montreal, and Waterski Fest in Mayo Lake.

Dr. Jeff Greene will return to Duke University and enter the Medical School in August 1994. Jeff worked for two years as a post-doctoral research associate in Todd Klaenhammer's group on the mechanisms by which lactobacilli adhere to differentiated intestinal cells, in vitro. Jeff can now transform himself into a new class of triangle academic, Dr. BlueWolf, MD. Good luck, Jeff!

Susan Heddleson and **Rebecca Guzy** were chosen Outstanding Teaching Assistants for their work in the Department of Food Science. They were selected by the NCSU Graduate Student Association.

Gwen Allison was awarded first place in the Graduate Student Paper Competition of the Dairy Foods Division, at the Annual Meeting of the American Dairy Science Association held in Minneapolis, MN, July 11-14.

Alison Adams was awarded the 1994 Donald A. Withycombe Graduate Fellowship in Food Chemistry. This award is sponsored by the Division of Ag & Food Chemistry of the American Chemical Society.

Mrs. Sandra West joined Klaenhammer's group in January, as a research technician, working with Dan O'Sullivan on bacteriophage expression systems.

Darrell Taylor presented research at the 8th International Flavor Conference in Greece in early July.

Dr. Annie King (Ph.D., 1979) is now serving as Associate Dean of Undergraduate Academic Programs at UC Davis.

Dennis and **Mary Jo Romero** have a new baby, **Daniel Joseph**, born April 27, 1994. Another food microbiologist, we hope!

Lee Christy is working for Webb Technical Group in Raleigh.

David Booker (M.S., 1993) is now a Research & Development Manager for Holly Ridge Foods.

Ginger Wescott (BS 1992, MS 1994) is working as a Research Technician at East Carolina University.

Melanie (Morrison) Senter (BS, 1986) is an IFT Councilor and is a Food Technologist in the Flavor Division at Givaudan-Roure Corporation in Clifton, NJ.

Jennifer Quinlan is the Chief Microbiologist for the North Carolina Department of Agriculture. She began this position on May 31 and is continuing her Ph.D. degree on a part-time basis. Jennifer received second place in the IFT Food Microbiology Division John Ayers Poster Competition at the June 1994 Annual Meeting of the IFT.

The Food Ingredient Technology/R&D Class Term Product Development Project was a team competition event sponsored by Gerber Foods. The goal was to develop a toddler finger food. Mr. Roger Townley, a food R&D consultant and former NCSU graduate, and Mr. Tim Fairchild, a former Gerber R&D manager and NCSU graduate student were the judges. The winning team was **Joann Stryker, Patricio Carvajal** and **Alissa Dix** with a fruit-filled toddler breadstick. They each received "Gerber Graduate" T-shirts as a prize.

HONOR SOCIETY INDUCTEES

Anna K. Reich, Eilene L. Bowland and **Laura D. Reina** were inducted into Gamma Sigma Delta in April 1994.

The following students were inducted into Phi Tau Sigma as associate members in April 1994: **Diego Darquea, Cheryl Gaither, Wendy Jackson, James Parker, Anna Reich, Laura Stevenson, Craig Sherwin, Heidi Bardole, Kai Koo, Michael Kyerme, Nandini Natrajan, James Schuman, Darrell Taylor, Bangkosh Vardhanabhuti, Ying Xie, Ancheng Zhou.**

Dr. Robert Vimini of Cuddy Farms, Inc. and incoming faculty member, **Dr. LeeAnn Jaykus**, were inducted as full members. The ceremonies preceded the 6th J.L. Etchelles Memorial Lecture, presented by **Dr. James B. Russell** of USDA and Cornell University.

Food Science News is produced in the NCSU Department of Food Science for alumni, friends, faculty, students and others interested in departmental activities. Comments, personal and professional updates from alumni, and address corrections/additions/deletions should be sent to: J.C. Allen, Editor, Food Science News, 218 Schaub Hall, Box 7624, North Carolina State University, Raleigh, NC 27695-7624.

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